

Figure 1

Title: METHOD OF PREPARING DNA FRAGMENTS BY SELECTIVE
FRAGMENTATION OF NUCLEIC ACIDS AND APPLICATIONS THEREOF

Inventor(s): Anne-Gaëlle BRACHET et al.

Atty. Docket No. 1169-041

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Enzyme E1	Enzyme E2	Number of bases selected in the 5' position	in the 3' position	Number of potential subgroups (footprints)
<u>Bam</u> H1 ↓ CGATCC CCTAGC	+ <u>Mme</u> I TCCPuAC.....20 AGGPYTG.....18	1/32 (2x4x4)	1/16 (4x4)	16
<u>Eco</u> RI ↓ GAATTC CTTAAG		1/128 (4x2x4x4)	1/16 (4x4)	16
<u>Pst</u> I ↓ CTGCAG GACGTC		1/256 (4x4x4x4)	1/256 (4x4x4x4)	256
<u>Msp</u> I ↓ CCGG GGCC	+ <u>Bsm</u> FI GGGAC.....10 CCCTG.....14	1/64 (4x4x4)	1/256 (4x4x4x4)	256
<u>Xma</u> CI ↓ CCCGGG GGCCGC		1/16 (4x4)	1/256 (4x4x4x4)	256
<u>Msp</u> I ↓ CCGG GGCC		1/256 (4x4x4x4)	1/16 (4x4)	16
<u>Eco</u> 56I ↓ CCCGGC CCGCCG	+ <u>Ecl</u> I GGCGGA.....11 CCGCCT.....9	1/64 (4x4x4)	1/16 (4x4)	16
<u>Ksp</u> I ↓ CCGCGG GGCGCC		1/4 (4)	1/16 (4x4)	16

Figure 2

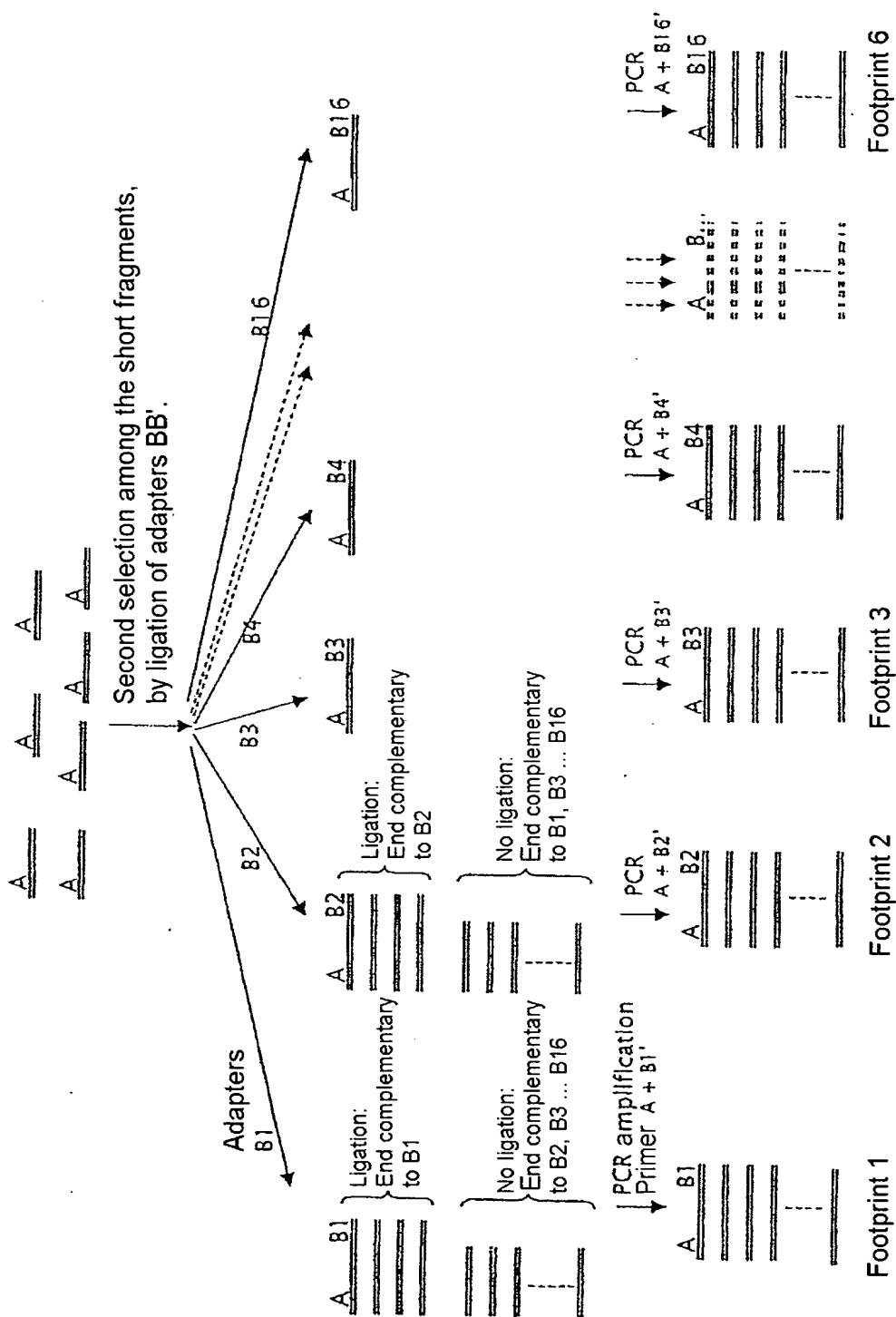


Figure 3

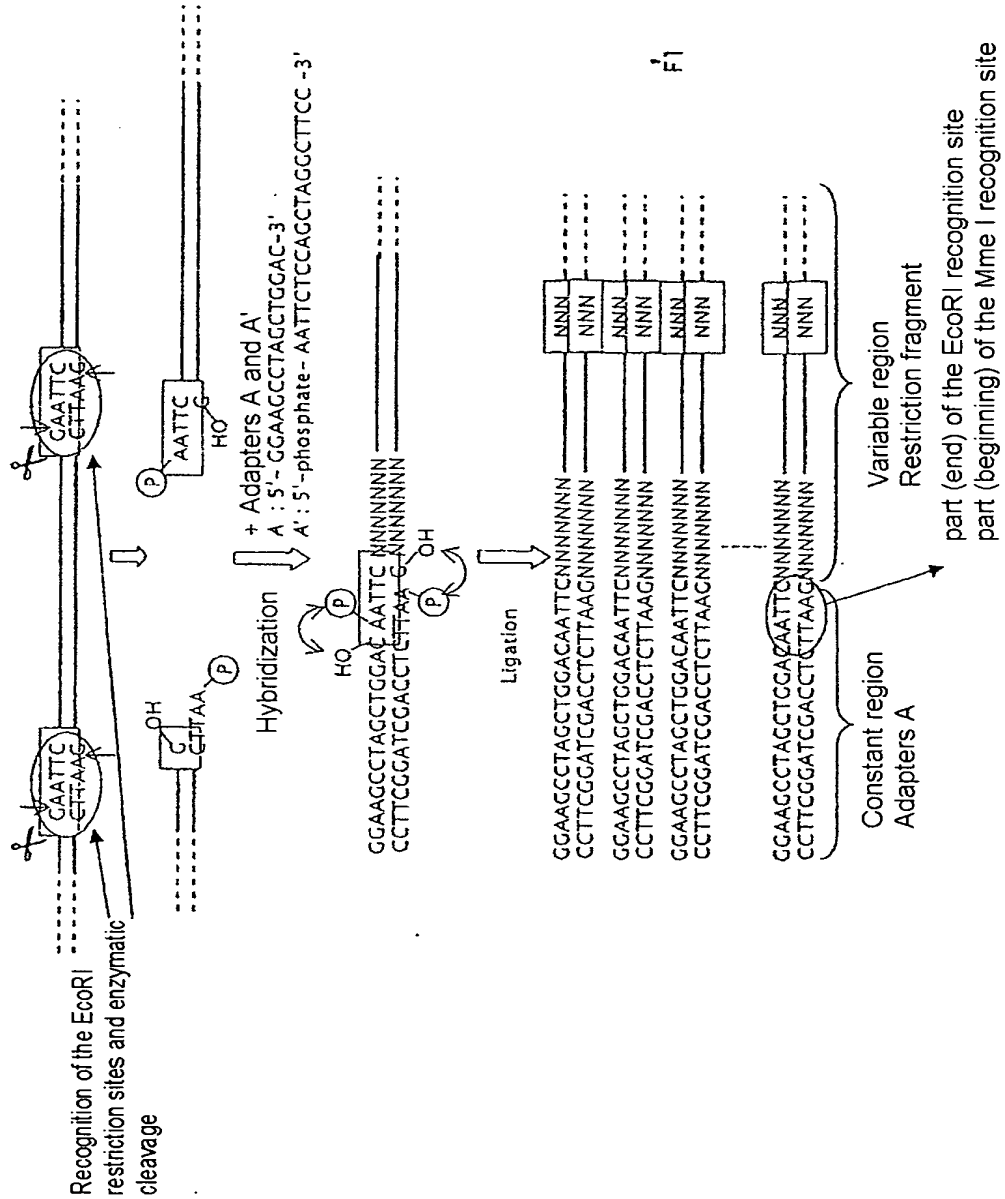


Figure 4-1

Inventor(s): Anne-Gaëlle BRACHET et al.

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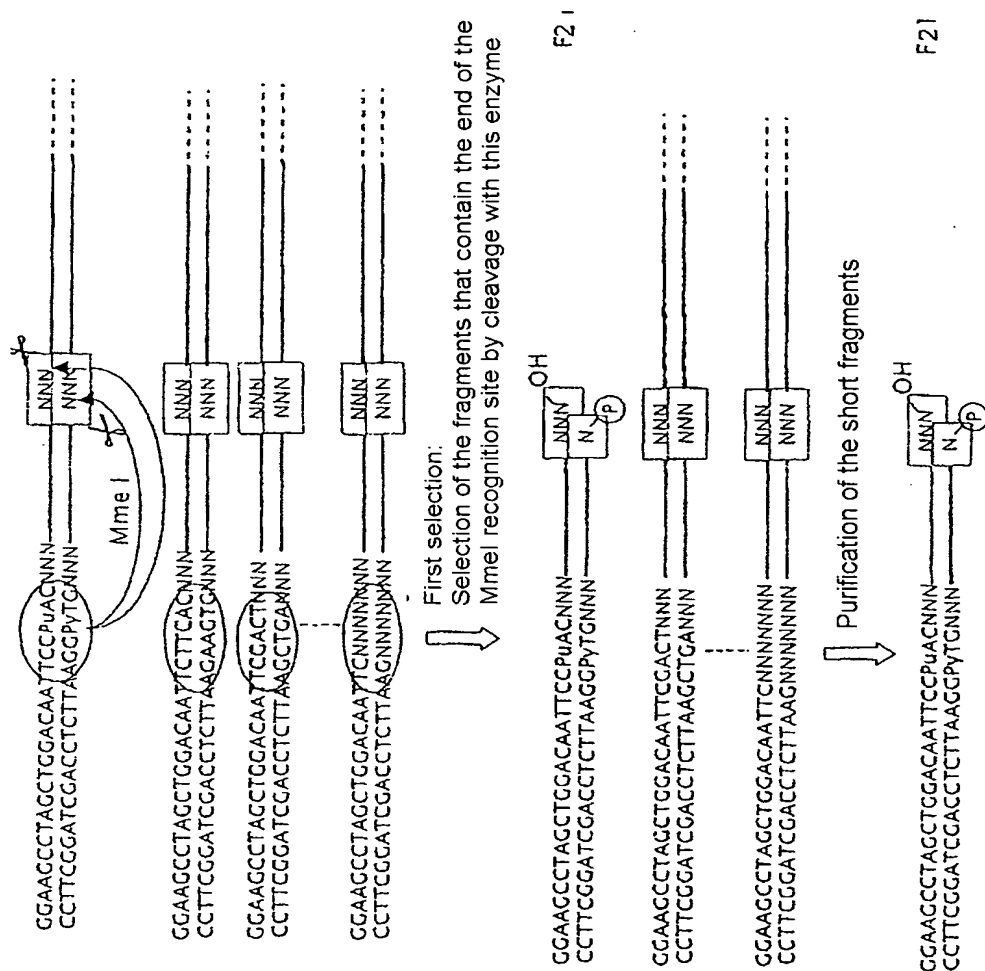
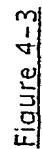
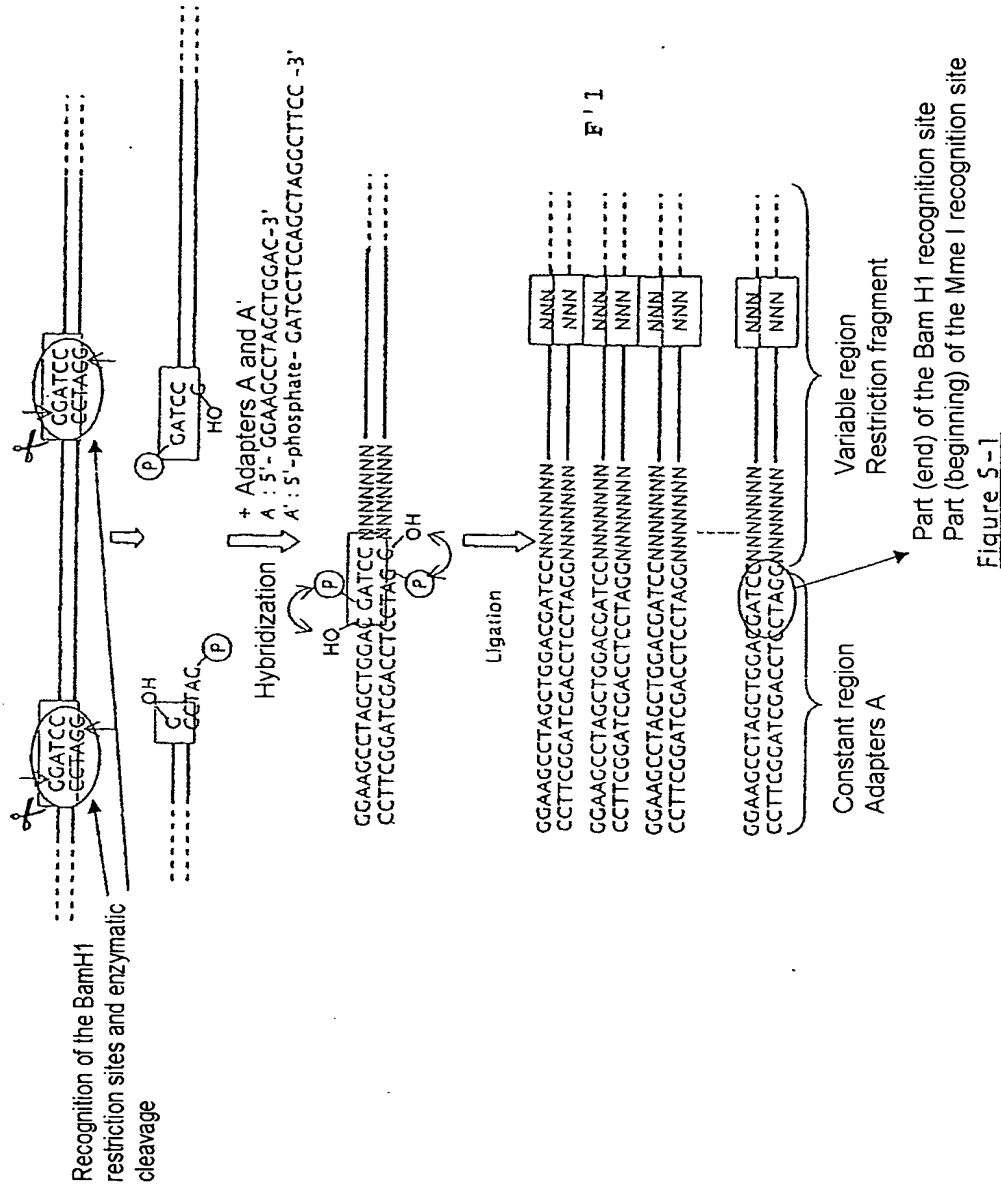


Figure 4-2





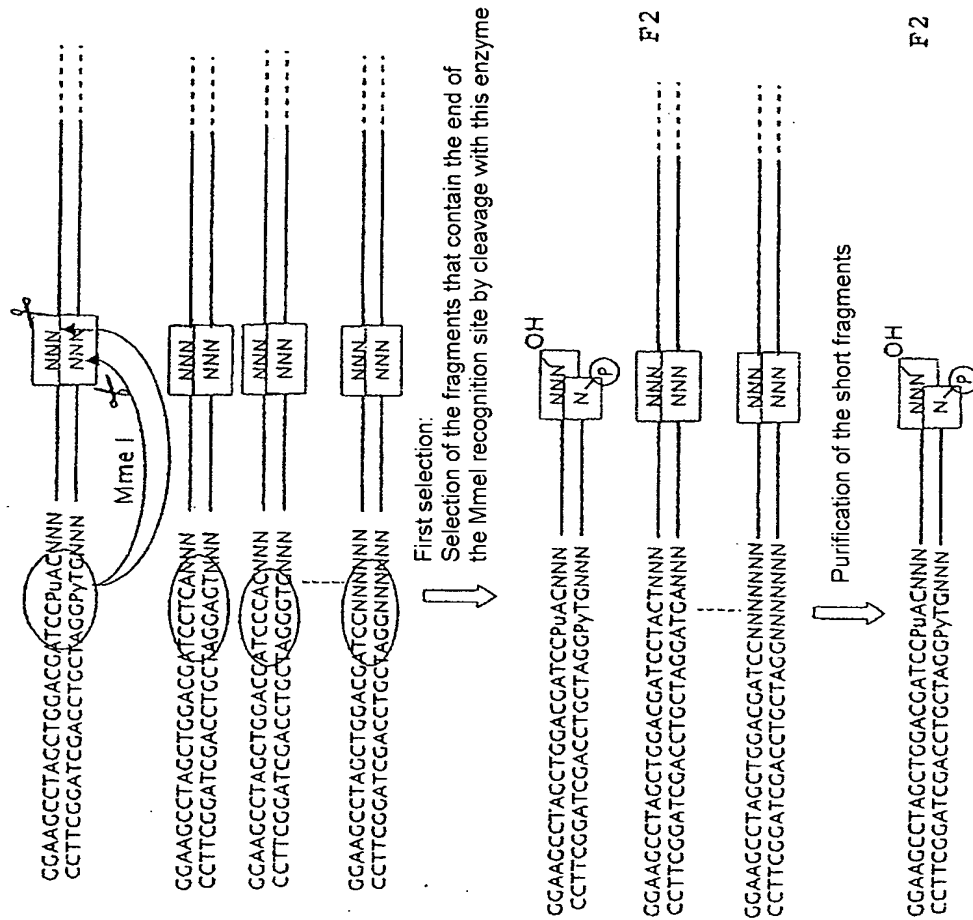


Figure 5-2

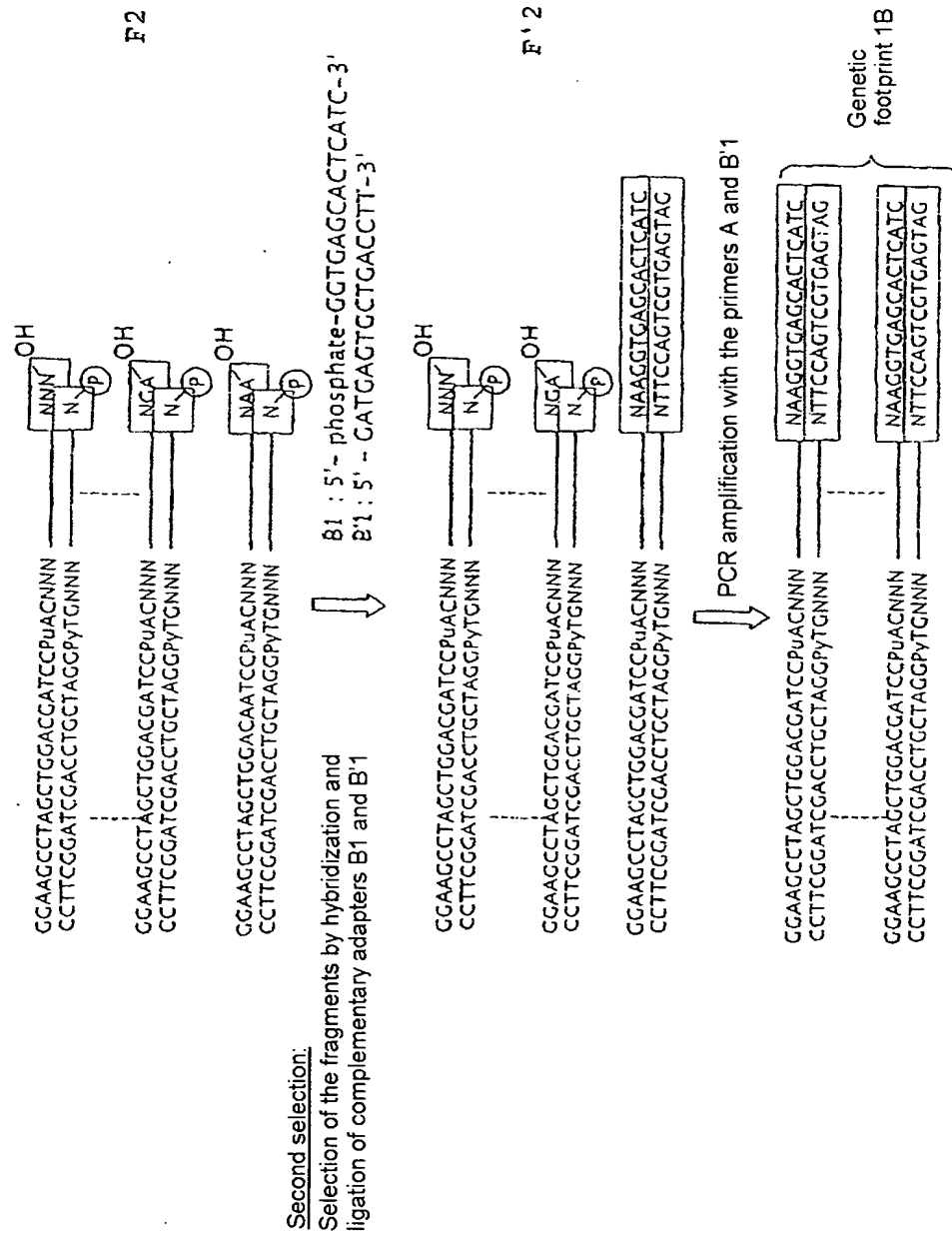


Figure 5-3

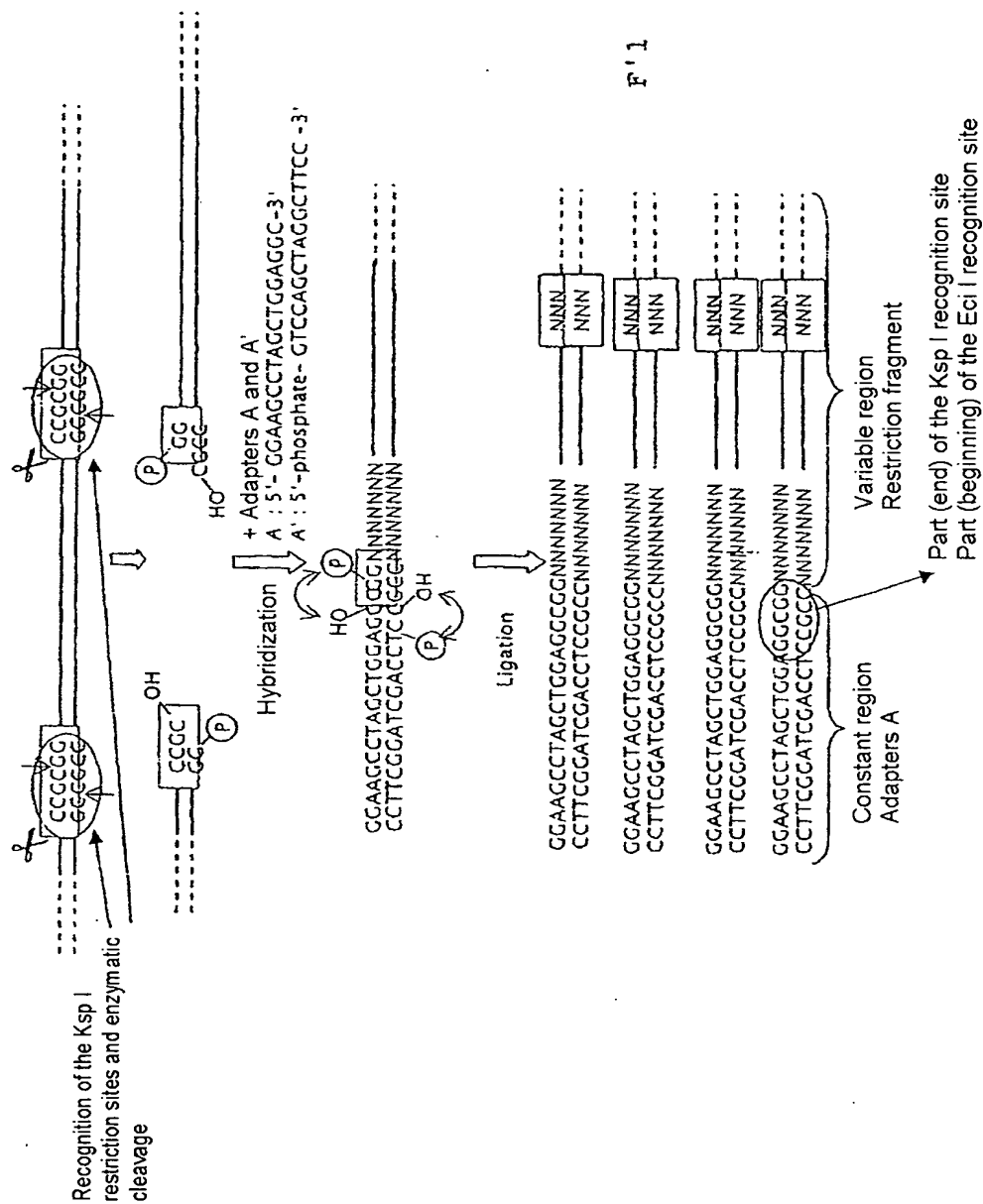
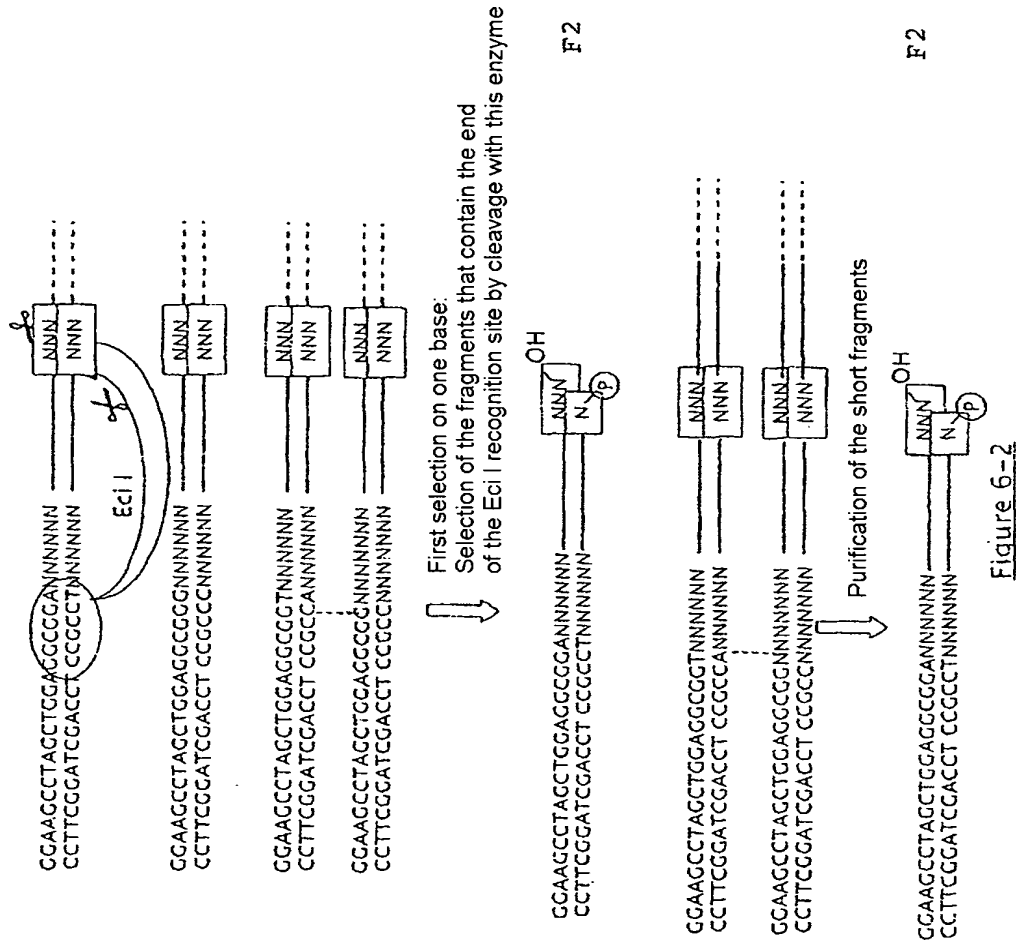


Figure 6-1



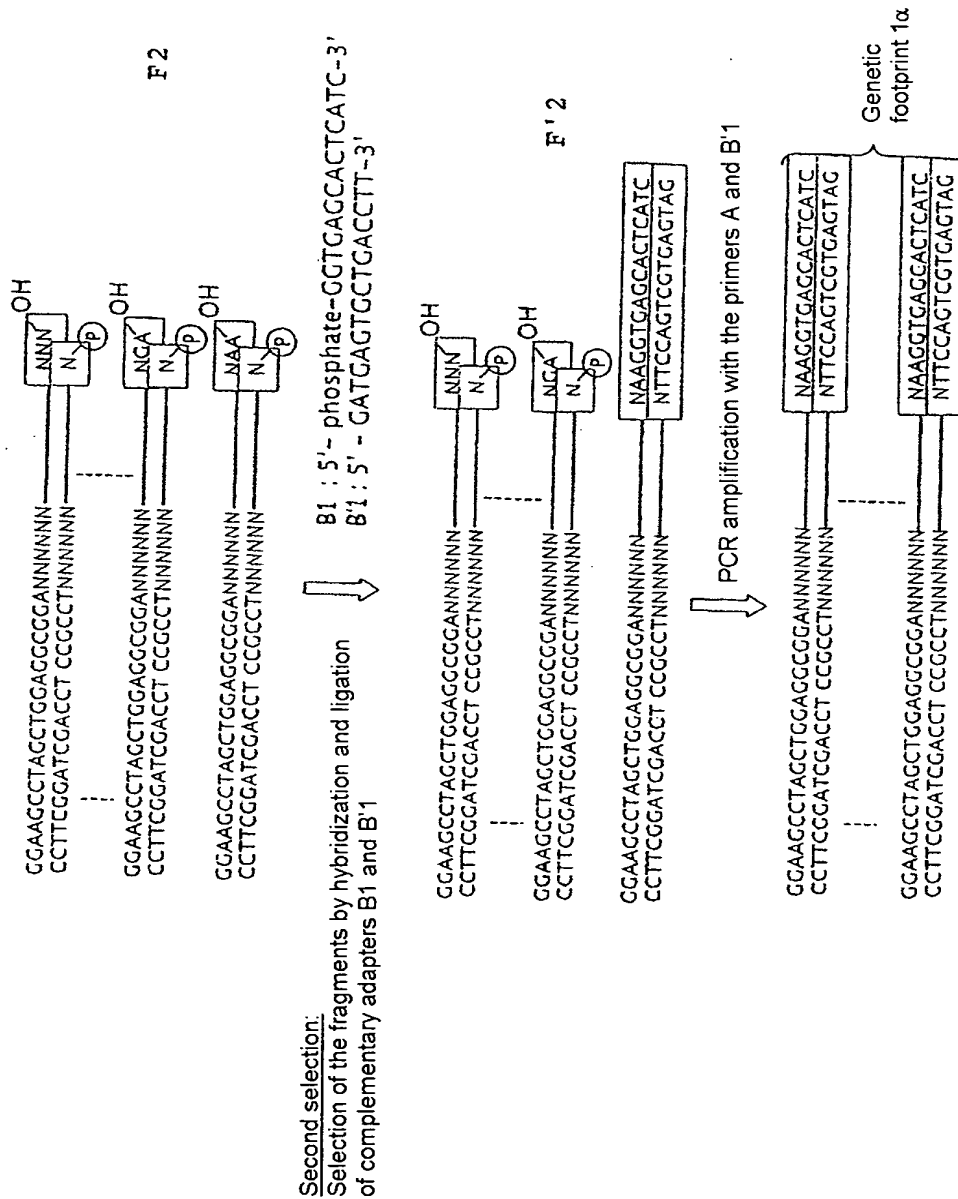


Figure 6-3

Enzyme E1 _A			Enzyme E2			
Name	Restriction site	Selection 1 of the fragments by cleavage 1 (step a)	Name	Restriction site	Selection 2 of the fragments by cleavage 2 (step c)	Optional selection 3 of the fragments (steps e and f)
<i>Tag^a I</i>	-TCGA -AGCT	governed by E1 _C	<i>BseR I</i>	-GAGGAGN ₁₀ -CTCCTCN ₈	$\frac{1}{-} \frac{1}{-}$ 4 ⁴ 256	$\frac{1}{-} \frac{1}{-}$ 4 ² 16
<i>Msp I</i>	-CCGG -GGCC	governed by E1 _C	<i>BsmF I</i>	-GGGACN ₁₀ -CCCTGN ₁₄	$\frac{1}{-} \frac{1}{-}$ 4 ³ 64	$\frac{1}{-} \frac{1}{-}$ 4 ⁴ 256
<i>Msp I</i>	-CCGG -GGCC	governed by E1 _C	<i>Eci I</i>	-GGCGGAN ₁₁ -CCGCCTN ₉	$\frac{1}{-} \frac{1}{-}$ 4 ⁴ 256	$\frac{1}{-} \frac{1}{-}$ 4 ² 16
<i>Msp I</i>	-CCGG -GGCC	governed by E1 _C	<i>Fok I</i>	-GGATGN ₉ -CCTACN ₁₃	$\frac{1}{-} \frac{1}{-}$ 4 ³ 64	$\frac{1}{-} \frac{1}{-}$ 4 ⁴ 256

Figure 7

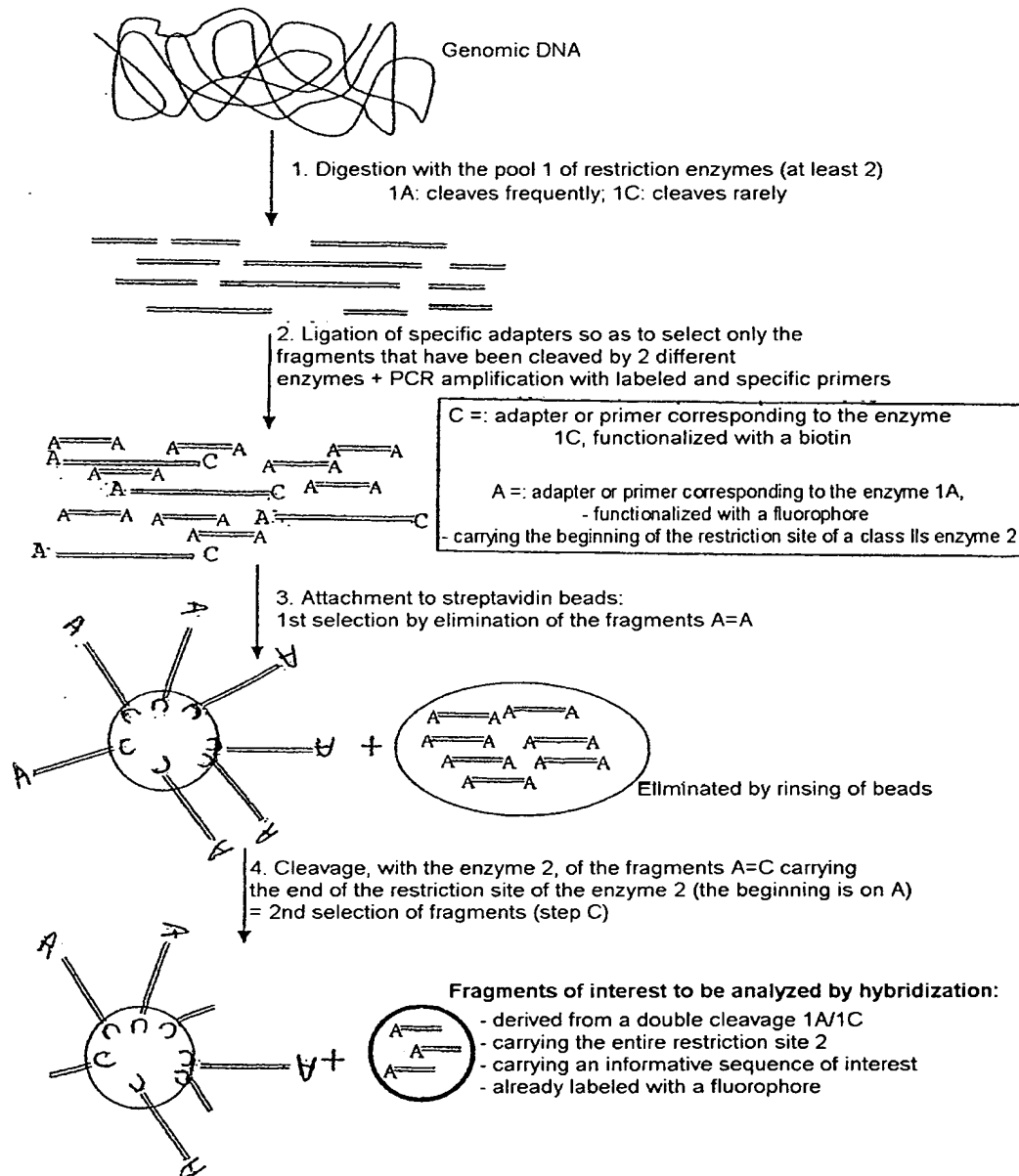


FIGURE 8